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DEPARTMENT OF TRANSPORTATION STATE OF HAWAII

SEAT BELT USAGE LITERATURE REVIEW

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Department of Transportation
Hawaii Highway Safety Social Marketing Program
Sub-Section: Seat Belt Usage

Summary of Existing Information

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I. PLANNING OVERVIEW

Objective

The objective of this phase of the project is to identify what types of research and social marketing programs have been done in Hawaii, the US and the world that will provide additional insight into programs/actions that will encourage all motorists and passengers to buckle-up.

Target Segments

Based on the literature review the target groups that will be further explored include the following:

- Young Drivers 16-24 Years of Age -
  Past and current research shows that younger drivers have lower levels of seat belt usage. This is particularly a problem because young drivers are more likely to be involved in crashes – especially 16 and 17 year olds.

- Males of All Ages -
  Statistics show that females are more likely to wear seat belts than men. While recent research suggests that this gender gap is closing, the differences are still very significant.

- Drivers of Pick-Up Trucks -
  National research studies have shown consistently that pick-up truck drivers are less likely to use seat belts. Interestingly, that was not the case in the most recent seat belt use study in Hawaii – the reasons could be enlightening.

Next Steps

Areas that require additional examination of the target groups through the telephone survey and focus groups are as follows:

- Motivations and situations that "cause" an individual to not buckle-up
- Attitudes toward seat belt use and non-use
- Attitudes toward enforcement of Hawaii State seat belt laws
- Awareness of the importance of seat belt use in case of crashes
- The perceived seriousness of non-use of seat belts

II. INTRODUCTION

On August 25, 2003, U.S. Transportation Secretary Norman Mineta announced that safety belt use in the United States had reached 79 percent – the highest level in the nation's history. Restraint use estimates are based on the National Occupant Protection Use Survey (NOPUS), conducted annually by NHTSA. The previous survey, in June 2002, found nationwide belt use at 75 percent. The scientific survey is based on observations at 2,000 sites nationwide.

Hawaii seat belt use rose to 91.8 percent, which is the highest level of belt usage ever recorded in the State. Every region of the country registered increases in belt use since 2002, according to the 2003 survey by the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA).

States with primary safety belt laws averaged 83 percent belt usage while states with secondary laws averaged 75 percent. Twenty states (including Hawaii), the District of Columbia and Puerto Rico have primary belt laws.

According to NHTSA estimates, the increase in belt use this year will translate into more than 1,000 lives saved each year the gains in belt use are sustained. In addition, the costs to American society are reduced by at least $3.2 billion.

The nationwide survey was conducted after the massive "Click It or Ticket" mobilization in May, the largest-ever nationwide law enforcement effort to increase safety belt use. NHTSA Administrator Jeffrey Runge, M.D., credited the hard work of the state highway safety offices, state and local law enforcement agencies, advocacy groups and public/private sector partners, including the Air Bag & Seat Belt Safety Campaign, for the increase in belt use.

The May enforcement mobilization was, for the first time, supplemented by an almost $25 million state and national media campaign. More than 12,000 law enforcement agencies in all 50 states, the District of Columbia and Puerto Rico conducted safety belt checkpoints and other special law enforcement activities as part of the campaign.

While seat belt use in Hawaii is at 91.8 percent, ranking it among the leading states in the nation, there remains the very difficult task of converting the remaining unbuckled vehicle occupants. This will require the continuation of coordinated efforts of government, law enforcement, concerned citizens and many other private and public agencies throughout Hawaii.

III. RESEACH ON SEAT BELT USE

While there are various studies that focus on seat belt usage, the primary source of information in the United States comes from the National Occupant Protection Use Survey (NOPUS), conducted annually by Department of Transportation's National Highway Traffic Safety Administration (NHTSA).

NHTSA also conducts a telephone survey of belt use, the Motor Vehicle Occupant Safety Survey (MVOSS), that provides demographic detail that cannot be observed, and insight into the reasons why people do not buckle up.

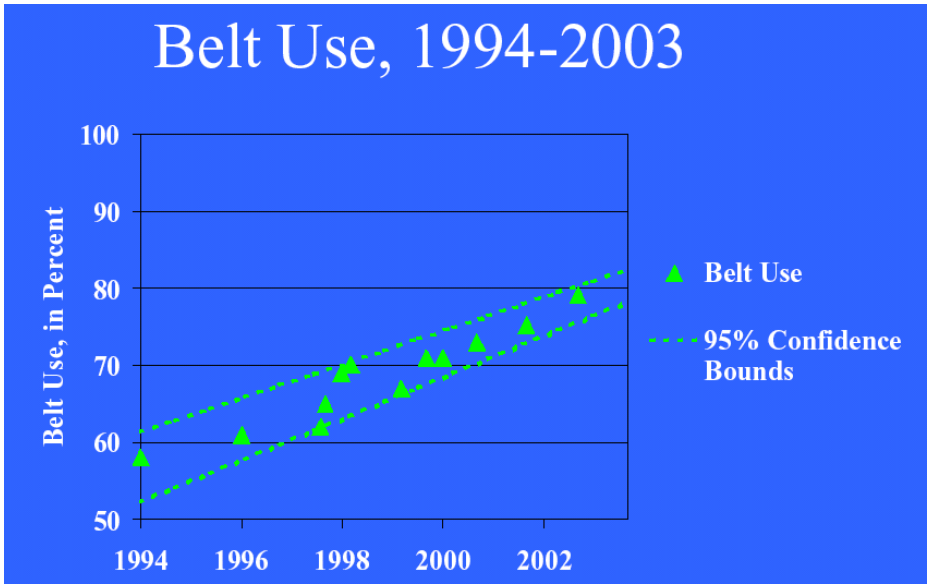
Topics in these research studies fall into the following categories:

(1) Seat belt usage rates at the State, Regional and National levels
(2) Effects of deterrents such as law enforcement and publicity campaigns
(3) Factors that affect seat belt use
(4) Seat belt use by type of vehicle

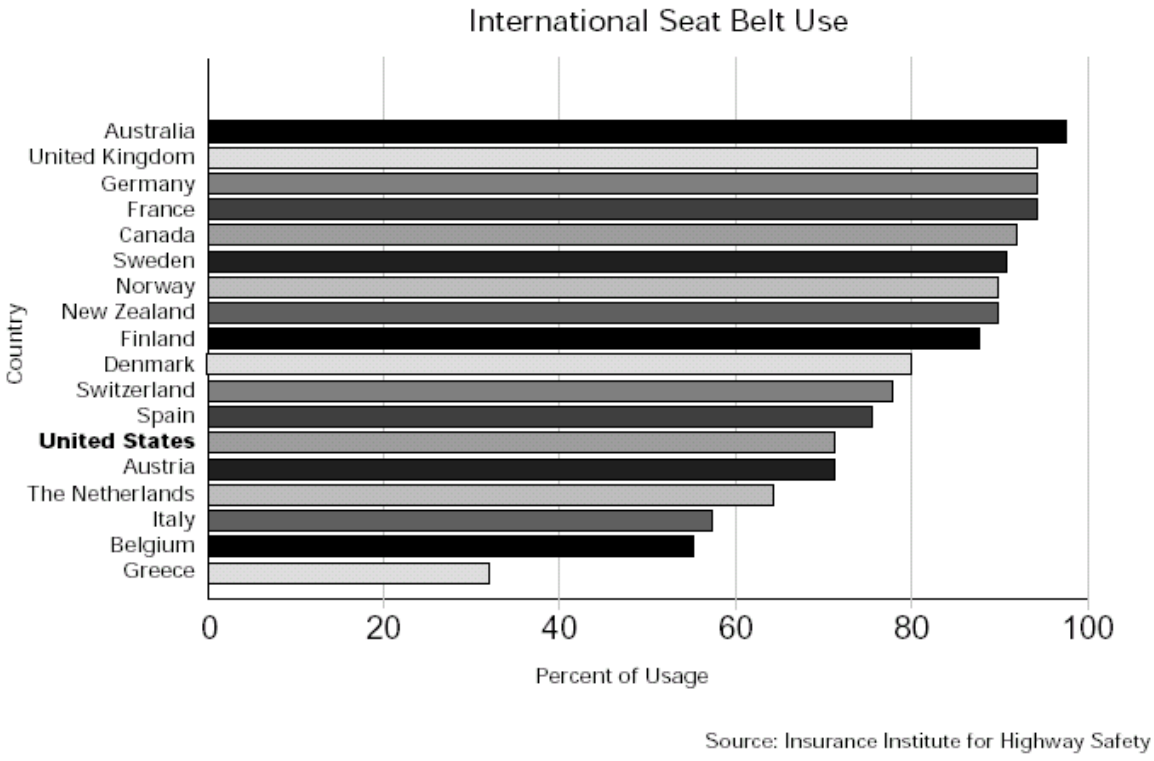
Seat Belt Usage in the US - Key Facts

- Seat belt use continues to increase nationally, and in 2003 reached 79 percent
- States with primary safety belt laws averaged 83 percent belt usage while states with secondary laws averaged 75 percent.
- Many countries, most notably Australia, UK, Germany, France, and Canada, have significantly higher seat belt use rates than the United States.
- Belt use is highest in the West (84 percent) and South (80 percent). Usage is lowest in the Northeast (74 percent) followed by the Midwest (75 percent).
- Females have consistently been found to use belts more than males. In 2002, female belt use was 79 percent, compared to 72 percent for males.
- Drivers in the 16-24 age range have significantly lower levels of seat belt use compared to all other age categories – in 2002 it was 69 percent
- Drivers of vans and SUVs have the highest level of seat belt use.
- Drivers of pick-up trucks have the lowest level of seat belt use on a national basis, but that was not the case in Hawaii where pick-up truck drivers had higher use rates than car drivers.

US Seat Belt Usage Rate Trends 1994-2003 (NOPUS)



International Seat Belt Use in 2001



Source: Insurance Institute for Highway Safety

Seat Belt Use Rates in the States for 2001 and 2002 (NOPUS)

Table 1: Safety Belt Use Rates in the States and Selected Territories**

Jurisdiction	Use in 2001	Use in 2002	Reduction in Nonuse	Jurisdiction	2001	2002	Reduction in Nonuse
Alabama	**79%**	**79%**	**0%**	Montana	76%	78%	8%
Alaska	63%	66%	8%	Nebraska	70%	70%	0%
Arizona	74%	74%	0%	Nevada	75%	75%	0%
Arkansas	55%	64%	20%	New Hampshire	*	*	*
California	**91%**	**91%**	**0%**	New Jersey	**78%**	**81%**	**14%**
Colorado	72%	73%	4%	New Mexico	**88%**	**88%**	**0%**
Connecticut	**78%**	**78%**	**0%**	New York	**80%**	**83%**	**15%**
Delaware	67%	71%	12%	North Carolina	**83%**	**84%**	**6%**
District of Columbia	**84%**	**85%**	**6%**	North Dakota	58%	63%	12%
Florida	70%	75%	17%	Ohio	67%	70%	9%
Georgia	**79%**	**77%**	**-10%**	Oklahoma	**68%**	**70%**	**6%**
Hawaii	**83%**	**90%**	**41%**	Oregon	**88%**	**88%**	**0%**
Idaho	60%	63%	8%	Pennsylvania	71%	76%	17%
Illinois	71%	74%	10%	Rhode Island	63%	71%	22%
Indiana	**67%**	**72%**	**15%**	South Carolina	70%	66%	-13%
Iowa	**81%**	**82%**	**5%**	South Dakota	63%	64%	3%
Kansas	61%	61%	0%	Tennessee	68%	67%	-3%
Kentucky	62%	62%	0%	Texas	**76%**	**81%**	**21%**
Louisiana	**68%**	**69%**	**3%**	Utah	78%	80%	9%
Maine	*	*	*	Vermont	67%	85%	55%
Maryland	**83%**	**86%**	**18%**	Virginia	72%	70%	-7%
Massachusetts	56%	51%	-11%	Washington#	83%	**93%**	**59%**
Michigan	**82%**	**83%**	**6%**	West Virginia	52%	72%	42%
Minnesota	74%	80%	23%	Wisconsin	69%	66%	-10%
Mississippi	62%	62%	0%	Wyoming	*	67%	*
Missouri	68%	69%	3%	Puerto Rico	**83%**	**91%**	**47%**

*** An asterisk indicates that the state did not conduct a survey that met the criteria in Exhibit 1.**
****Rates observed in jurisdictions that have primary enforcement laws are in boldface.**
Source: Surveys conducted in accordance with Section 157 in Title 23 of the United States Code.

Seat Belt Usage in Hawaii - Key Facts

- The greatest increase in seat belt use was observed when the seat belt law took effect in December 1985, jumping from 33.0 percent to 73.0 percent.

- Dramatic increases were observed during recent "Click-It or Ticket" campaigns, with a jump in seat belt usage from 83.5 percent (January 2002) to 91.8 percent (May 2003), an all time high.

- Findings are consistent with previous surveys in that drivers are more often belted than are passengers.

- Findings include differences by county with overall results showing an increase in belt use rates in each county for the second year in a row. Kauai county was the only county not to set a new peak in seat belt usage.

Oahu	92.3%
Maui	91.3%
Hawaii	90.7%
Kauai	89.8%

- Other factors associated with seat belt use in the 2003 Hawaii survey:

  - **Vehicle type -** drivers and passengers in SUVs and vans were belted most often, while trucks had higher belt use rates than cars

  - **Traffic volume** - seat belt use was lower in low volume areas, observed usage was higher as the volume in traffic increased

  - **Weather conditions -** the sunnier the condition, the higher the seat belt usage (93 percent vs 88 percent during cloudy conditions)

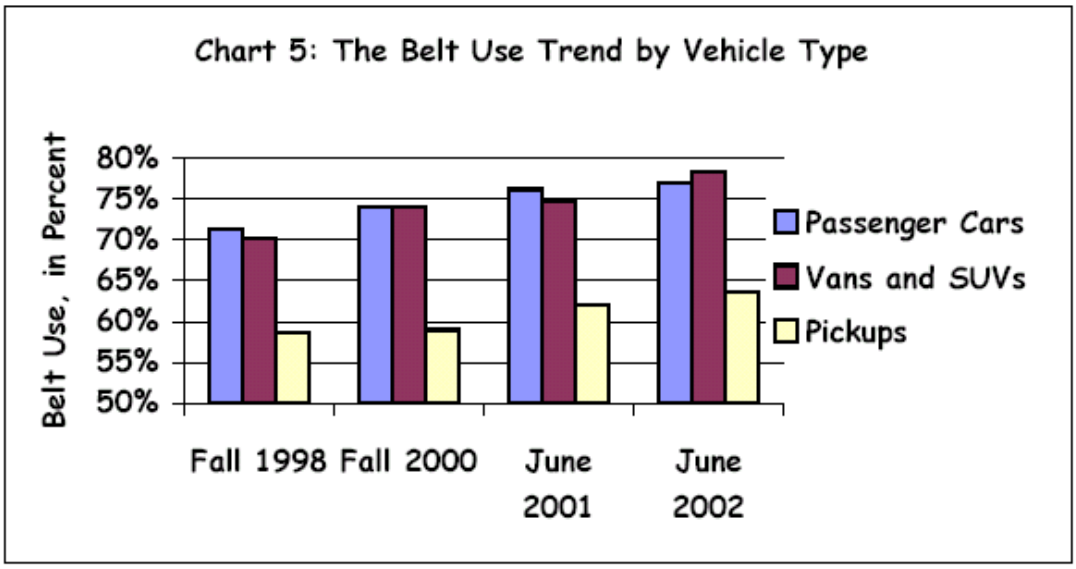
  - **Speed -** observed seat belt use increased as speed limit increased

  - **Number of lanes -** no recognizable pattern was detected (one, two, three, four and five lanes observed)

  - **Day of the week -** weekday seat belt use was only slightly greater that weekend belt use

Safety Belt Use by Vehicle Type (NOPUS)

Safety belt use by pick-up truck occupants is about 64 percent, among the lowest for any demographic group based on the National Occupant Protection Use Survey, June 2002. However, in the 2003 Hawaii Seat Belt Use Survey, pick-up trucks had a higher use rate (90.5 percent) than passenger cars (87.7percent).



Source: National Center for Statistics and Analysis, NHTSA, National Occupant Protection Use Survey, 2000-2002.

Seat Belt Use by Males vs Females – Key Facts

- Since its inception in 1994, NOPUS has generally seen a 10-point gap in belt use by males and females, with females consistently found to use belts more. In 2002, the disparity narrowed to 7 points, with females using belts 79 percent of the time, compared to 72 percent for males.

- While the gap has narrowed, female seat belt use continues to be statistically higher than male use.

- The lower use by males has substantial consequences. The vast majority of the thousands of lives that are lost each year from not using belts are male. This is partly because males use belts less and partly because they are on the road more.

- In 2001, 70 percent of the 18- to 34-year-old **male** vehicle occupants killed or severely injured in crashes were not wearing safety belts. Fifty-five percent of the **women** age 18 to 34 who were killed or severely injured in crashes were not buckled up. [Fatality Analysis Reporting System]

Seat Belt Use by Age of Occupant – Key Facts

- Age is a significant factor in belt use. Occupants aged 8-15 and those 70 and over use belts more than those in 25-69 age range, while 16-24 year olds use belts less often. (NOPUS 2002)

- Almost 8,000 young people aged 16-20 died in traffic crashes in 2002—nearly a 6 percent increase from 2001—and thousands more were injured. More than two-thirds of those young people who died in traffic crashes were not buckled.

- In 2001, 66 percent of all 18 to 34 year old drivers and passengers killed or severely injured in crashes were not wearing safety belts. By comparison, among vehicle occupants aged 35 and older who were killed or severely injured in crashes, 51 percent were not buckled.

- Teen safety belt use is significantly higher in states with primary safety belt laws compared with states that have only secondary laws. [National Safety Council Airbag and Seat Belt Campaign, 2002]

- Motor vehicle crashes are the leading cause of death for 15 to 20 year olds in the United States.

- When driver fatality rates are calculated on the basis of estimated annual travel, teen drivers (16 to 19 years old) have a fatality rate that is about four times higher than the fatality rate among drivers 25 through 69 years old.

- Male high school students (18 percent) report that they are more likely to rarely or never use safety belts compared with female high school students (10 percent).

IV. SOCIAL AND ECONOMIC IMPACT OF NON-USE OF SEAT BELTS

There are numerous studies that focus on the impact of occupant restraint systems in vehicle crashes. The most widely used source of data is the Fatality Analysis Reporting System (FARS), which is a census of fatal crashes within the 50 states and the District of Columbia, which is conducted by the National Highway Traffic Safety Administration (NHTSA).

Fatal Crashes and Seat Belt Usage - Key Facts

- Last year, deaths among vehicle occupants rose 2.2 percent to 33,988. Fifty-nine percent of passenger vehicle occupants killed in both 2001 and 2002 were not restrained.

- Research has shown that lap/shoulder belts, when used properly, reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent and the risk of moderate to critical injury by 50 percent. For light truck occupants, safety belts reduce the risk of fatal injury by 60 percent and moderate to critical injury by 65 percent.

- Seventy-three percent of the people who were in a fatal crash in 2001 and were restrained survived; of those who were not restrained, only 44 percent survived. [NHTSA, Annual Assessment of Motor Vehicle Crashes]

- Passengers not wearing safety belts face a higher risk of brain injury in a crash than belted drivers, according to a study conducted by Dr. Lewis Kaplan of MCP Hahnemann University Hospital in Philadelphia.

- Safety belts should always be worn, even when riding in vehicles equipped with air bags. Air bags are designed to work *with* safety belts, not alone. Air bags, when not used with safety belts, have a fatality-reducing effectiveness rate of only 12 percent.

Economic Impact of Seatbelt Use in Crashes - Key Facts

- The needless deaths and injuries from the non-use of safety belts account for an estimated $26 billion in economic costs to society annually. The costs go beyond the lost lives of unbuckled drivers and passengers; we all pay in higher taxes and higher health care and insurance costs. (DOT HS 809 578 March 2003)

- In the past 26 years, safety belts prevented 135,000 fatalities and 3.8 million injuries, saving $585 billion in medical and other costs. If all vehicle occupants had used safety belts during that period, nearly 315,000 deaths

and 5.2 million injuries could have been prevented -- and $913 billion in costs saved. [NHTSA, Economic Impact of Crashes]

- The economic cost for each crash fatality in 2000 was more than $977,000, an average of $1.1 million for each critically injured person. [Progressive Auto Insurance Survey, 2001]

- Crash related injuries cause 25 percent of lost workdays.

- Direct costs that involve crashes where the occupants were not wearing seat belts average $5,000 more per crash than those involving occupants who were wearing their belts. (National Safety Council 8/28/2000)

- Safety belt usage saves society an estimated $50 billion annually in medical care, lost productivity, and other injury-related costs.

- Spinal Cord Injury patients (a common event in car crashes) routinely become Medicaid beneficiaries in a fairly short time frame after their injury. The majority will remain on Medicaid, which pays for those services that will be required for the remainder of their lifetime.

- The National Spinal Cord Injury Statistical Center reports that the cost of health care and living expenses for quadriplegic patients in the first year after an injury ranges from $209,074 to $572,178 depending on the level of the injury.

V. BEST PRACTICES FOR INCREASING SEAT BELT USE

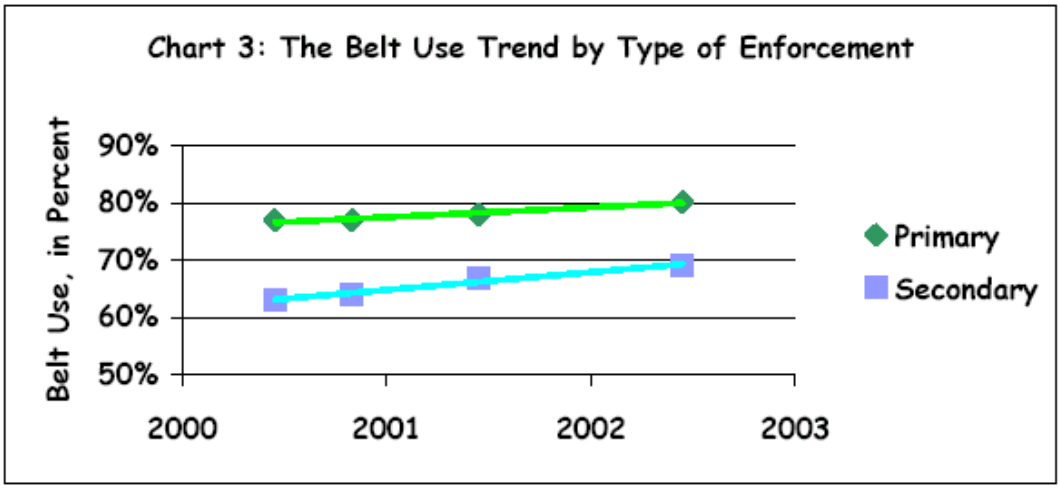
Seat belt use in Hawaii is at its highest point in history at 91.8 percent, which ranks it among the leading states in the nation. This has not happened by chance, but by coordinated efforts of government, law enforcement, concerned citizens and many other private and public agencies. While this is a remarkable achievement, there remains the very difficult task of converting the remaining unbuckled vehicle occupants. The following is a review of the best practices for increasing seat belt use:

Primary vs Secondary Seat Belt Laws – Key Facts

- Eighteen states (including Hawaii), the District of Columbia and Puerto Rico have safety belt laws with primary enforcement. A primary safety belt law allows officers to stop and ticket drivers for violating the safety belt law without observing any other infraction. The remaining states (except New Hampshire) have secondary laws. Secondary laws allow officers to give tickets for safety belt violations only after a car is stopped for some other violation.

- Safety belt use rates increase an average of 15 percentage points after a state adopts a primary safety belt law. (National Safety Council 8/28/2002)

- Teen safety belt use is significantly higher in states with primary safety belt laws compared with states that have only secondary laws. [National Safety Council Airbag and Seat Belt Campaign, 2002]



Source: National Center for Statistics and Analysis, NHTSA, National Occupant Protection Use Survey, 2000-2002.

- Many teens support primary enforcement safety belt laws. In 2000, a nationwide survey was conducted to determine attitudes regarding primary enforcement safety belt laws. Of the more than 500 young people 16 to 20 years of age who were surveyed, 60 percent voiced their support for primary enforcement laws. (DOT HS 809 578 March 2003)

Selective Traffic Enforcement Programs (sTEPs) – Key Facts

- Occupant Protection Selective Traffic Enforcement Programs (sTEPs) are periods of highly visible safety belt law enforcement combined with extensive media support. These programs are a proven method to change motorists' safety belt use behavior and do it quickly. Successful Occupant Protection sTEPs have been documented in Canada, Europe, and the United States. (DOT HS 809 578 March 2003)

- Highly visible enforcement of safety belt laws is at the core of any plan to increase safety belt use; no State or community has ever achieved a high safety belt use rate without strong enforcement of such laws. Strong enforcement of safety belt laws sends the message that the State takes safety belt use laws seriously. Ultimately, this leads to greater compliance. (DOT HS 809 578 March 2003)

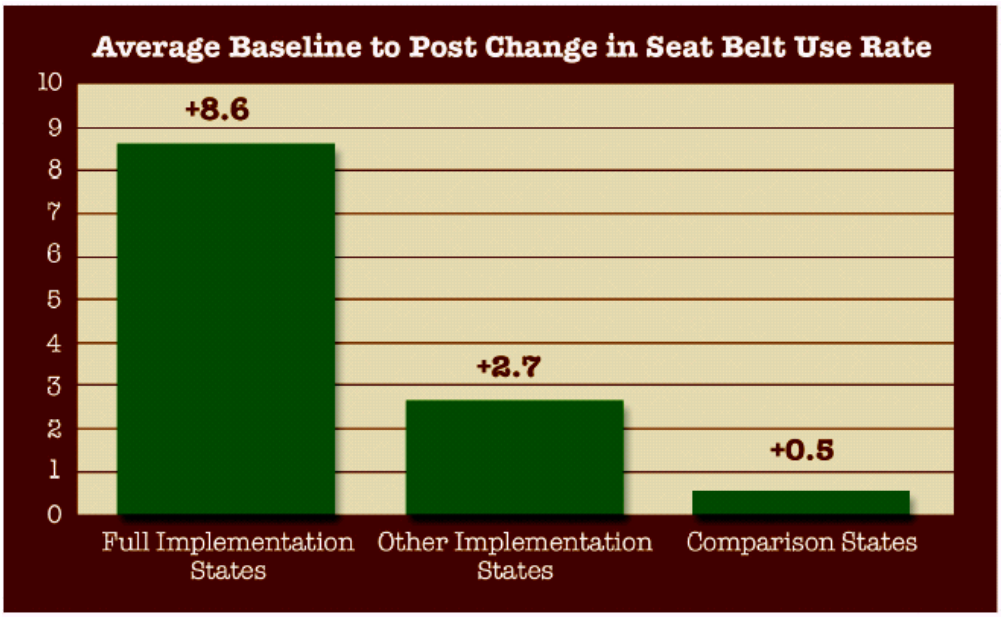
- Enforcement of safety belt laws is significantly more effective when it is combined with media saturation because the perceived risk of receiving a citation is increased. Research shows that people will buckle up if they believe the police are enforcing the law. (DOT HS 809 578 March 2003)

- The most notable sTEP program, the "Click It or Ticket" model has been enormously successful in increasing safety belt use at the community, State, and regional level. A "Click It or Ticket Campaign" was fully implemented and evaluated in May 2002. This initiative involved a partnership between the National Highway Traffic Safety Administration (NHTSA), the Air Bag & Seat Belt Safety Campaign, and hundreds of law enforcement agencies.

- This year in Hawaii dramatic increases were observed during recent "Click-It or Ticket" campaigns with a jump in seat belt usage from 83.5 percent (January 2002) to 91.8 percent (May 2003.), an all time high.

- The chart below shows the results of the 2002 "Click It or Ticket" campaign for three categories of states – (1) those that had full implementation of the program; (2) those that had partial implementation; and, (3) states that did not participate in the program.

Click It Or Ticket campaign 2002



VI. INNOVATIVE PROGRAMS RELATED TO SEAT BELT USE

Section 157, -- the Transportation Equity Act for the 21st Century

- In fiscal year 2003 there were 34 states, along with the District of Columbia and Puerto Rico that shared $50.47 million in incentive grants for increasing seat belt use. Grants have been awarded to states that have either achieved a seat belt usage rate above the national average for 2000 and 2001 or that have achieved a usage rate in 2001 that is higher than the state had in any previous year since 1996.

- The amount of each state's grant is based on savings in medical costs to the federal government from increased seat belt use. The award amounts range from a low of $19,800 for Alaska to a high of $16.5 million for California.

- The State of Hawaii received $277,300 for fiscal year 2003.

- Many opportunities for innovation exist, regardless of the State's current seat belt use rate or its ongoing efforts to increase it. Specific examples of various innovative activities that can be used in support of a core component of enforcement include:

  --Expanding participation in the national seat belt enforcement mobilizations

  --Implementing efforts to train, motivate, and recognize law enforcement officers for participation in the program

  --Implementing a training or orientation program for prosecutors and judges to make them aware of the program and of the importance of consistently prosecuting and adjudicating occupant protection law violations

  --Strengthening public information efforts by adding a paid advertising component to support earned (i.e., news) and public service media efforts

  --Adopting a more focused message that brings attention to the ongoing enforcement effort

  --Establishing new partnerships and coalitions to support ongoing implementation of legislation or enforcement efforts (e.g., health care and

medical groups, partnerships with diverse groups, businesses and employers)

--Initiating or expanding public awareness and outreach efforts to reach specific populations that have low seat belt use

--Initiating or expanding enforcement of other traffic laws (e.g., impaired driving laws) as a means for implementing highly visible enforcement of seat belt use laws

Ford Seat Belt Alarms

- A unique safety belt reminder system installed in late model Ford passenger vehicles has increased driver belt use from 71 to 76 percent, a new study conducted in Oklahoma has found.

- In cooperation with Ford, Insurance Institute for Highway Safety researchers unobtrusively observed driver belt use when cars were brought in for service at 12 dealerships in Tulsa and Oklahoma City during August and September.

- Ford's reminder system differs from the one mandated by the federal government, which activates for no more than 8 seconds when cars are started. Ford's system flashes and chimes intermittently over several minutes if a driver does not buckle up.

- In a different study that surveyed drivers of Fords equipped with Belt Minder™ systems found favorable reviews. Most of the drivers said they like the reminder and want a system like it in their next car. (see *Status Report*, Feb. 9, 2002; on the web at www.highwaysafety. org).

VII. CONCLUSION

Seat belt use in the United States continues to steadily increase and in the most recent study conducted in May 2003 by the NHTSA, seat belt use reached an all-time high of 79 percent. While this is a noteworthy achievement, the United States lags significantly behind many other countries such as Australia, United Kingdom, Germany, France and Canada, where the usage rates are above 90 percent.

The State of Hawaii has aggressively and effectively addressed the issue of seat belt safety to become one of the top performing states in the nation. The only problem with reaching such a lofty goal as 91.8 percent seat belt usage, is that the task becomes very difficult to make improvements among the remaining unbuckled vehicle occupants.

The State of Hawaii has followed the best known practices for increasing seat belt use including passage of a primary seat belt law, strict and visible law enforcement, providing public education about the merits of using safety belts, and gaining the cooperation of many private and public agencies for support. Perhaps the most important thing that could be done in the future is that these policies and practices be sustained. The current level of seat belt use in Hawaii will not stay this high without a continuation of these efforts.

But what about improvement? What can be done to reach the approximately 1 in 12 vehicle occupants in Hawaii who do not buckle up? For every percentage point increase in seat belt use, there is a tremendous positive impact in terms of lives saved, injuries avoided, and medical costs averted. The research indicates that there are specific target groups that can be addressed, and that there continues to be innovative techniques and programs that can be explored. The most promising areas of focus seem to be:

- Gain a better understanding of why young drivers use seat belts less often.
- Target young drivers with age appropriate information about the serious consequences for the non-use of safety belts.
- Consider adopting a policy of "graduated driver licensing" that includes a strong component of seat belt safety.
- Gain a better understanding of why men are less likely to buckle up than women.
- Educate men of the fact that the vast majority of traffic fatalities are men.
- Increase the visibility of law enforcement regarding the current seat belt laws.
- Find out why pickup truck drivers in Hawaii are far more likely to use seat belts than pickup truck drivers on the mainland (and then share that information).
- Continue to develop public awareness campaigns that are powerful, memorable, clever and believable.
- Make Hawaii drivers aware and proud of seat belt use levels reached in the state.

APPENDIX A: COMPLETE ARTICLE ON AN INNOVATIVE SEAT BELT SAFETY CAMPAIGN IN ENGLAND

THINK! Seatbelts

New campaign - 8 September 2003:
Wear a seatbelt...You don't get a second chance

(Department of Transport – United Kingdom)

A stark new road safety campaign was launched today by Transport Minister Tony McNulty to underline the risks people take when they don't wear a seatbelt.

Department for Transport statistics show that nearly one in ten drivers and front seat passengers do not wear seatbelts and whilst seatbelt wearing rates in the back seat have improved over recent years - about four in ten adults still don't belt up. DfT estimates that around 10 front seat users are killed annually by unbelted rear seat passengers hitting them in a crash.

The new campaign includes a brand new television advert and an interactive online crash simulator. It highlights the consequences of not belting up - even at lower speeds in urban areas.

Graphically depicting a road traffic accident - the new TV ad shows what happens to three young men in a crash when they are unbelted. The sequence is then re-run with the men wearing seatbelts. The interactive road safety website demonstrates and describes the effects of crashing with and without a seatbelt. The 'crash simulator' explains the type of injury that can occur in a crash to show the importance of wearing a seatbelt. It allows the user to try out different speeds and different occupants - including children.
Tony McNulty, Transport Minister said:

> *"Too many drivers and passengers still fail to wear a seatbelt. This campaign continues our thought-provoking publicity to try and convince them of the need to belt up - even on short trips.*
>
> *"Wearing a seatbelt can save your life - I hope our new campaign will be a powerful reminder to those who seem to forget."*

Notes to editors:

1. This is the latest TV commercial from the Government's £14m Think-road safety campaign. The new ad runs from 8 - 27 Sept on primetime TV slots.

2. The new website is available at http://www.thinkseatbelts.com. The crash simulator allows the user to select a number of criteria such as speed, number of passengers in the car etc. It then shows a crash in which the occupants are not wearing seatbelts and provides text information on the likely injuries and their severity. The crash is then played through again, this time with seatbelts and, as in the advert, the more devastating consequences are avoided - demonstrating the importance of a simple click.

APPENDIX B: SEAT BELT USE CHARACTERISTICS FOR THE PAST FOUR YEARS – (NOPUS)

CHARACTERISTICS OF SEAT BELT USE
2000 - 2003

Characteristic	June 2003	June 2002	June 2001	Fall 2000
Overall	79%	75%	73%	71%
Primary Enforcement	83%	80%	78%	77%
Secondary Enforcement	75%	69%	67%	64%
Drivers	80%	76%	74%	72%
Passengers	77%	73%	72%	68%
Passenger Cars	81%	77%	76%	74%
SUVs & Vans	83%	78%	75%	74%
Pickup Trucks	69%	64%	62%	59%
Northeast	74%	69%	62%	67%
Midwest	75%	74%	72%	68%
South	80%	76%	76%	69%
West	84%	79%	77%	80%
Weekday	78%	75%	73%	71%
Rush Hour	79%	76%	75%	73%
Non-Rush Hour	79%	75%	72%	70%
Weekend	81%	76%	74%	73%

Source: National Center for Statistics and Analysis, NHTSA, NOPUS 2000-2003

APPENDIX C: COMPLETE ARTICLE ABOUT A CASE STUDY OF A SEAT BELT CAMPAIGN IN FLORIDA

FLORIDA STUDENTS TURN GRIEF INTO ACTIVISM, LAUNCH SEAT BELT CAMPAIGN AFTER TEEN'S DEATH

(Buckle-up America Newsletter, Summer 2002)

A tragic car crash in Pensacola, Fla., left one high school student dead and his grieving classmates with a mission.

Last February, Joseph "Cody" Brown, a 16-year-old student at Tate High School in Pensacola, was riding home from school with some classmates when the driver lost control of the car and crashed into the woods. The two students in the front seats were belted in and were only slightly injured. Cody, who was in the back seat, wasn't wearing a seat belt. He was thrown from the car. Suffering severe head and spinal injuries, Cody went into a coma and was placed on life support.

Two nights later, Cody's family was told that he wouldn't recover. His father, Charles Brown, made a personal plea to some of Cody's friends, who had gathered at the hospital. Wear your seat belts for the next three weeks, he urged them, saying that if they could do it for that long, it would become automatic.

The next morning, Cody was taken off the respirator. He became the fifth teen in the area to die because of a crash since January.

News of Cody's death sent shock waves through Tate High School, particularly the school's multimedia academy, where Cody had been actively involved. Several of his friends decided to use the tragedy to organize a seat belt campaign for the entire school. So Tate launched a weeklong seat belt awareness campaign from March 18–22, which was declared Buckle Up for Cody Week.

"Raising seat belt awareness for the whole school proved to be a cathartic experience for the kids," said Tate multimedia academy instructor Candice Gibson. "It was a way for them to deal with [Cody's] death as a group instead of individually—while trying to prevent a future tragedy."

A team of more than 80 students implemented a program that included rallies, T-shirts, bumper stickers, and daily news coverage and public service announcements on the school's television and radio stations. Former students returned to help and seat belt use.

Students dressed as crash-test dummies joined sheriff's deputies at school parking lot checkpoints to issue mock citations to student drivers and passengers who weren't wearing seat belts. And several local businesses made donations such as bumper stickers and discounts on T-shirts to support the program.

But the heart of the campaign was issuing Cody's father's challenge to the entire student body. During that week, Tate students signed pledges stating that they would wear their seat belt for three weeks. The campaign also drew considerable attention from the local media, getting two separate segments on the ABC-TV affiliate, news coverage on radio stations and a front-page feature in the Pensacola News Journal.

"Buckle Up for Cody Week had an enormous impact on not only the school but the entire area," said Terry Henry, executive director of Think First of Northwest Florida, an injury prevention and education organization. In Florida, "the factor that has had the most influence on a young person deciding to wear his or her seat belt is knowing someone who was killed or injured in a car crash, the second was whether or said, citing a Think First survey.

Buckle Up for Cody Week coincided with another seat belt program for students— Florida's Battle of the Belts competition. Sponsored by Students Against Destructive Decisions (SADD), the contest awards the high schools with the most innovative and effective seat belt awareness programs. In addition to the Buckle Up for Cody Week activities, Tate's Battle of the Belts entry included results from a pre- and post-campaign observational survey of student drivers' seat belt use.

The Buckle Up for Cody campaign also inspired several other area schools to organize their own seat belt campaigns.

"The campaign will continue to have an effect at least through the end of the school year," said Gibson. "Every time someone wears a Buckle Up for Cody T-shirt, you can't help but stop and think about it."

APPENDIX D: COMPLETE ARTICLE ABOUT MARKETING SEAT BELT SAFETY TO TEENS

USING SOCIAL MARKETING TO TARGET TEENS

(Buckle-up America Newsletter, Spring 2002)

MTV. Tommy Hilfiger. Cell phones. Seat belts?

Commercial marketers, eager to tap the American teenager's spending power, have spent billions to turn their products into staples of teen culture. Those marketers have their eyes on immediate profits, of course, but that's not all. They know that if they can establish a buying pattern or brand loyalty during the teenage years, they are more likely to have a lifelong customer.

To reach teens, public health groups have increasingly been taking a lesson or two from commercial marketers. And traffic safety advocates can do the same. The stakes are high: Motor vehicle crashes are the leading cause of death for young people. Last year, 5,700 16- to 20-year-olds were killed in crashes, and more than half a million were injured. What's more, most of the 15- to 19-year-olds killed in passenger vehicles typically fail to wear their seat belts.

Talk to teens to get their input in outreach efforts and materials. Social marketing can help bring those numbers down. Consider two of the nation's most high-profile marketing campaigns in the public health arena: The Office of National Drug Control Policy's $200 million national campaign to reduce drug use among teens and the American Legacy Foundation's $185 million national effort to reduce teen smoking. These groundbreaking social marketing -campaigns are succeeding with teens because they have two critical -characteristics: The programs are 1) comprehensive and integrated, and 2) culturally competent.

While small initiatives can have an impact in a single community, widespread behavior change requires multifaceted programs that reach teens in many ways. The key to developing such a comprehensive approach is creating components that are integrated, meaning that they support and reinforce one another. For teens, the components should have a common purpose and message that are based on a specific, proven strategy. For example, after exhaustive research, the Office of National Drug Control Policy (ONDCP) found that advertising works best in conjunction with other community- and school-based anti-drug programs, especially when consistent messages are conveyed through a variety of channels and in several contexts.

But even the most comprehensive program will succeed only if all of its elements are culturally competent. Most people think cultural competence means reaching out to minority audiences. But it's much more than that. True cultural competency involves understanding the culture and environment of any target audience that advocates are trying to reach, whether it is rural African American males or urban teens. All efforts must communicate to the audience with the language, visuals, tone and style that the audience recognizes and likes.

One way to make traffic safety materials more culturally competent for teens is to establish a youth advisory committee that can offer input about the materials. These committees are invaluable in ensuring the target audience will see the materials as legitimate. The American Legacy Foundation, when planning its national anti-tobacco campaign, brought together teens from around the country for brainstorming sessions. This teen input led to the development of the hip and rebellious "truth" anti-tobacco brand and a focus on exposing the tobacco industry's marketing of cigarettes to teens.

Those and other social marketing principles can give traffic safety efforts an unprecedented level of sophistication and effectiveness. The highway safety community would do well to follow the lead of the ONDCP and the American Legacy Foundation to help sell teens on seat belts—and save lives.

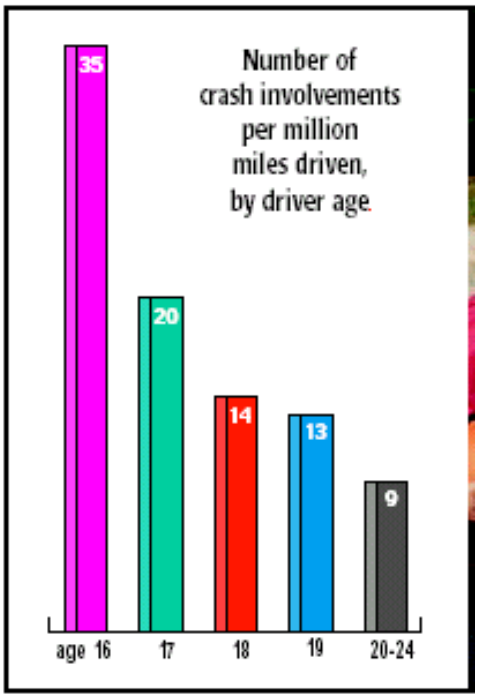
APPENDIX E: COMPLETE ARTICLE ABOUT GRADUATED DRIVER LICENSING

GRADUATED DRIVER LICENSING

(Insurance Institute for Highway Safety, News Release, 2003)

What is graduated driver licensing? It's a system designed to phase in young beginners to full driving privileges as they mature and develop their driving skills. Versions of graduated licensing exist in New Zealand, Australia and Canada. More recently, graduated licensing has been introduced in many U.S. states. There are three stages to a full graduated system, and beginners must remain in each of the first two stages for set minimum time periods: supervised learner's period; intermediate license (after the driver test is passed) limiting unsupervised driving in high-risk situations; and then a license with full privileges, available after completing the first two stages. Key elements of the intermediate stage include limits on late-night unsupervised driving and transporting teenage passengers. Certification that a learner's permit holder has driven a minimum number of supervised hours also is important.

Why target only young people? Why not target all novice drivers? The rationale for special policies for young beginning drivers is that their crash risk is particularly high. Sixteen-year-old drivers have higher crash rates than drivers of any other age, including older teenagers.



The very youngest drivers are most likely to engage in risky behaviors such as speeding and tailgating. Because of their inexperience, beginners are least able to cope with hazardous situations. When this is combined with their aggressive driving style, a high crash rate results. Graduated licensing introduces beginners into the driving population in a low-risk manner, protecting both them and others. Graduated licensing systems could apply to all first-time drivers as they do outside the United States. In this country, however, young people make up the majority of beginning drivers, and graduated systems now being considered in most states would focus on these drivers. It should be noted that young people are subject to legal restrictions in a variety of areas such as voting, purchasing alcohol, serving in the military, and assuming financial obligations

Can graduated licensing reduce crashes and save the lives of young people?
Yes. Graduated licensing programs have had a positive effect on the crash experience of young drivers in the United States and other countries, including Canada and New Zealand. In states that have adopted elements of graduated licensing, the safety benefits are evident. In Florida, which instituted a graduated system for drivers younger than 18 in July 1996, there was a 9 percent reduction in fatal and injury crash involvement for 15-17 year-olds in 1997, the first full year of graduated licensing, compared with 1995. Among 16 year-old drivers, Michigan saw a 25 percent reduction in crashes, while North Carolina experienced a 23 percent reduction. Ohio's program led to a 23 percent crash reduction among 16 and 17 year-olds. In Nova Scotia, crash reductions for 16 year-olds ranged from 23 to 37 percent.

APPENDIX F: COMPLETE ARTICLE SAFETY BELTS AND TEENS

Safety Belts and Teens 2003 Report

DOT HS 809 578, March 2003

Teens have the highest fatality rate in motor vehicle crashes than any other age group.[1] There are many reasons; for instance, while teens are learning the new skills needed for driving, many frequently engage in high-risk behaviors, such as speeding and/or driving after using alcohol or drugs. Studies also have shown that teens may be easily distracted while driving.[2] One key reason for high traffic fatalities among this age group is that they have lower safety belt use rates than adults.[3] Because teens have an increased exposure to potentially fatal traffic crashes, it is imperative that efforts to increase safety belt use among this age group be given the highest priority. In addition, the youth population has increased by more than 12 percent since 1993, and is expected to increase by another seven percent by 2005.[4] As this age group increases as a percentage of the population, the personal and societal costs associated with deaths and injuries from motor vehicle crashes also will rise.

Teens Are At Risk

Motor vehicle crashes are the leading cause of death for 15 to 20 year olds in the United States.[5]

In 2001, 5,341 teens were killed in passenger vehicles involved in motor vehicle crashes. Two thirds of those killed were not buckled up.[6]

In 2001, 3,608 *drivers* 15 to 20 years old were killed in motor vehicle crashes, and an additional 337,000 were injured.[7]

When driver fatality rates are calculated on the basis of estimated annual travel, teen drivers (16 to 19 years old) have a fatality rate that is about four times higher than the fatality rate among drivers 25 through 69 years old.[8]

Many high school students fail to use their safety belts even when riding with adults who are buckled up. An observational survey conducted at 12 high schools found that 46 percent of high school students were not wearing their safety belts when riding with adult drivers. About half of the **unbelted** students were riding with adults who were belted.[9]

A recent medical study examined motor vehicle fatality exposure rates and found that, per mile traveled, African American and Hispanic male teenagers (13-19 years old) are nearly twice as likely to die in a motor vehicle crash as male teenagers who are white.[10]

Male high school students (18 percent) report that they are more likely to rarely or never use safety belts compared with female high school students (10 percent).[11]

Safety Belts Save Lives And Dollars

In 2001, the estimated economic cost of police-reported crashes involving drivers between 15 and 20 years old was $42.3 billion.[7]

Safety belts saved more than 12,000 American lives in 2001. Yet, during that same year, nearly two-thirds (60 percent) of passenger vehicle occupants killed in traffic crashes were unrestrained.[12]

Research has shown that lap/shoulder belts, when used properly, reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent and the risk of moderate to critical injury by 50 percent. For light truck occupants, safety belts reduce the risk of fatal injury by 60 percent and moderate-to-critical injury by 65 percent.[13]

Safety belts should always be worn, even when riding in vehicles equipped with air bags. Air bags are designed to work *with* safety belts, not alone. Air bags, when not used with safety belts, have a fatality-reducing effectiveness rate of only 12 percent.[14]

Safety belt usage saves society an estimated $50 billion annually in medical care, lost productivity, and other injury-related costs.[15]

Conversely, safety belt *nonuse* results in significant economic costs to society. The needless deaths and injuries from safety belt nonuse account for an estimated $26 billion in economic costs to society annually.[16] The cost goes beyond the lost lives of unbuckled drivers and passengers: We all pay.in higher taxes and higher health care and insurance costs.

Strong Safety Belt Laws Can Make a Difference

There are two types of safety belt laws: primary and secondary. A *primary* (standard) safety belt law allows law enforcement officers to stop a vehicle and issue a citation when the officer simply observes an unbelted driver or passenger. A *secondary* safety belt law means that a citation for not wearing a safety belt can only be written after the officer stops the vehicle or cites the offender for another infraction.

Primary safety belt laws are much more effective in increasing safety belt use, because people are more likely to buckle up when there is the perceived risk of receiving a citation for not doing so. In June 2002, the average safety belt use rate in States with primary enforcement laws was 11 percentage points higher than in States without primary enforcement laws.[17] (Safety belt use was 80 percent in primary law States versus 69 percent in States without primary enforcement.)

Many teens support primary enforcement safety belt laws. In 2000, a nationwide survey was conducted to determine attitudes regarding primary enforcement safety belt laws. Of the more than 500 young people 16 to 20 years of age who were surveyed, 60 percent voiced their support for primary enforcement laws.[18]

Young drivers are more likely to use safety belts in States with a primary safety belt law versus States with a secondary law. The five states that currently have the highest teenage safety belt use are California, Maryland, Michigan, North Carolina, and Oregon. These States have primary safety belt laws that are among the strongest in the nation.[19]

Safety Belt Enforcement Programs

Occupant Protection Selective Traffic Enforcement Programs (sTEPs) are periods of highly visible safety belt law enforcement combined with extensive media support. These programs are a proven method to change motorists' safety belt use behavior and do it quickly. Successful Occupant Protection sTEPs have been documented in Canada, Europe, and the United States.[20, 21, 22, 23]

Highly visible enforcement of safety belt laws is at the core of any plan to increase safety belt use; no State or community has ever achieved a high safety belt use rate without strong enforcement of such laws. Strong enforcement of safety belt laws sends the message that the State takes safety belt use laws seriously. Ultimately, this leads to greater compliance.

Enforcement of safety belt laws is significantly more effective when it is combined with media saturation because the perceived risk of receiving a citation is increased. Research shows that people will buckle up if they believe the police are enforcing the law.

The "Click It or Ticket" model has been enormously successful in increasing safety belt use at the community, State, and regional level. A "Click It or Ticket Campaign" was fully implemented and evaluated in 10 States in May 2002. This initiative, which involved a partnership between the National Highway Traffic Safety Administration (NHTSA), the Air Bag & Seat Belt Safety Campaign, and hundreds of law enforcement agencies, helped to raise safety belt use an average of nine percentage points among these 10 States. One State, Vermont, experienced a 19 percentage-point increase in safety belt use as a result of the campaign.

Many jurisdictions in the United States have adopted graduated licensing, a system designed to delay full licensure while allowing beginners to obtain their initial experience under lower risk conditions. There are three stages: a minimum supervised learner's period, an intermediate license, and a full-privilege driver's license after successful completion of the first two stages.[24] A good graduated licensing system will have education and enforcement of safety belt laws. For example, in North Carolina, graduated licensing law includes provisions for fines for up to $100 for safety belt violations by new drivers.

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